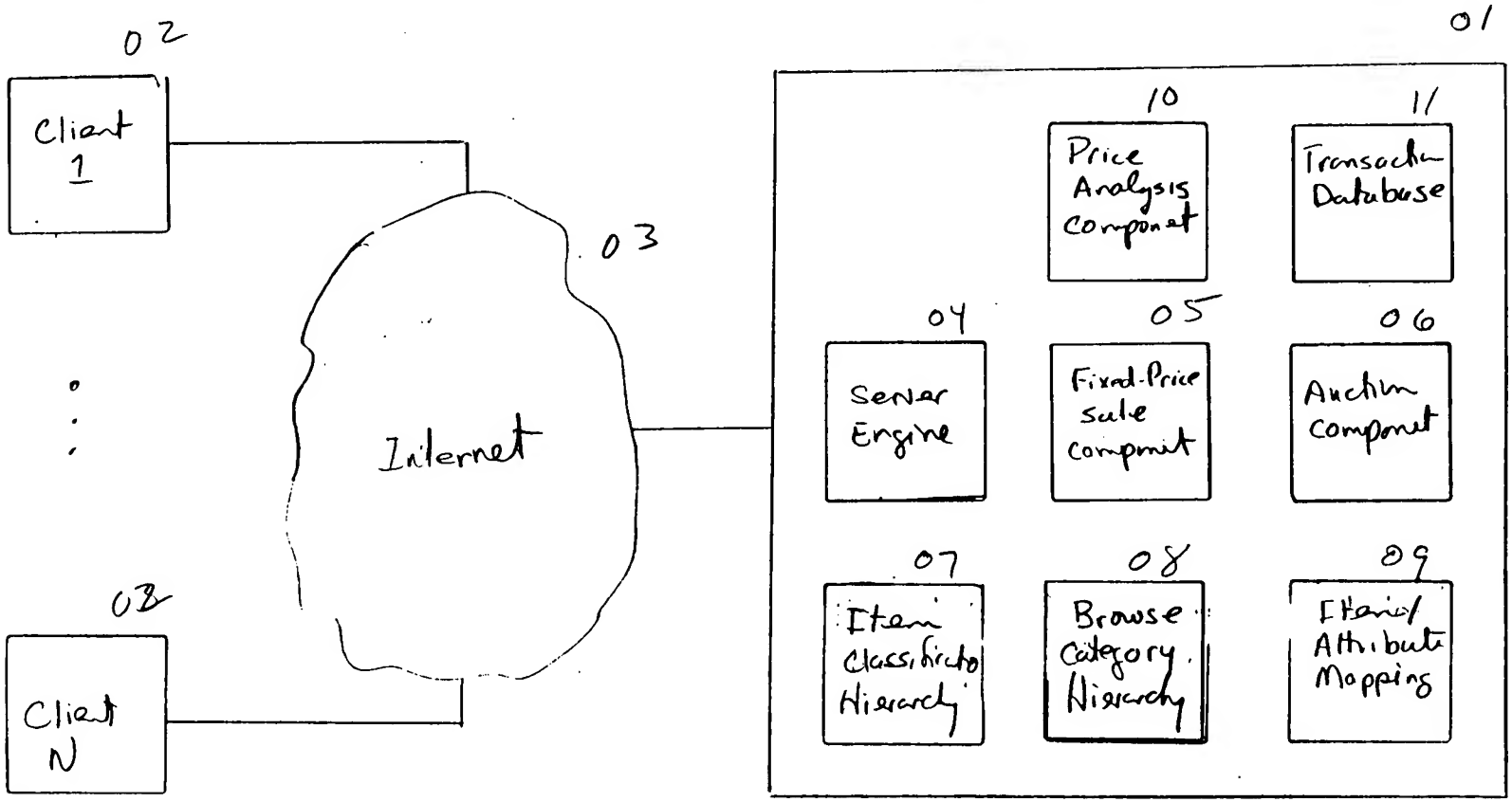
01
02
Client 1
03
Internet
08
Client N
10
Price Analysis Component
11
Transaction Database
04
Server Engine
05
Fixed-Price sale component
06
Auction Component
07
Item Classification Hierarchy
08
Browse Category Hierarchy
09
Item/ Attribute Mapping

Figure 1

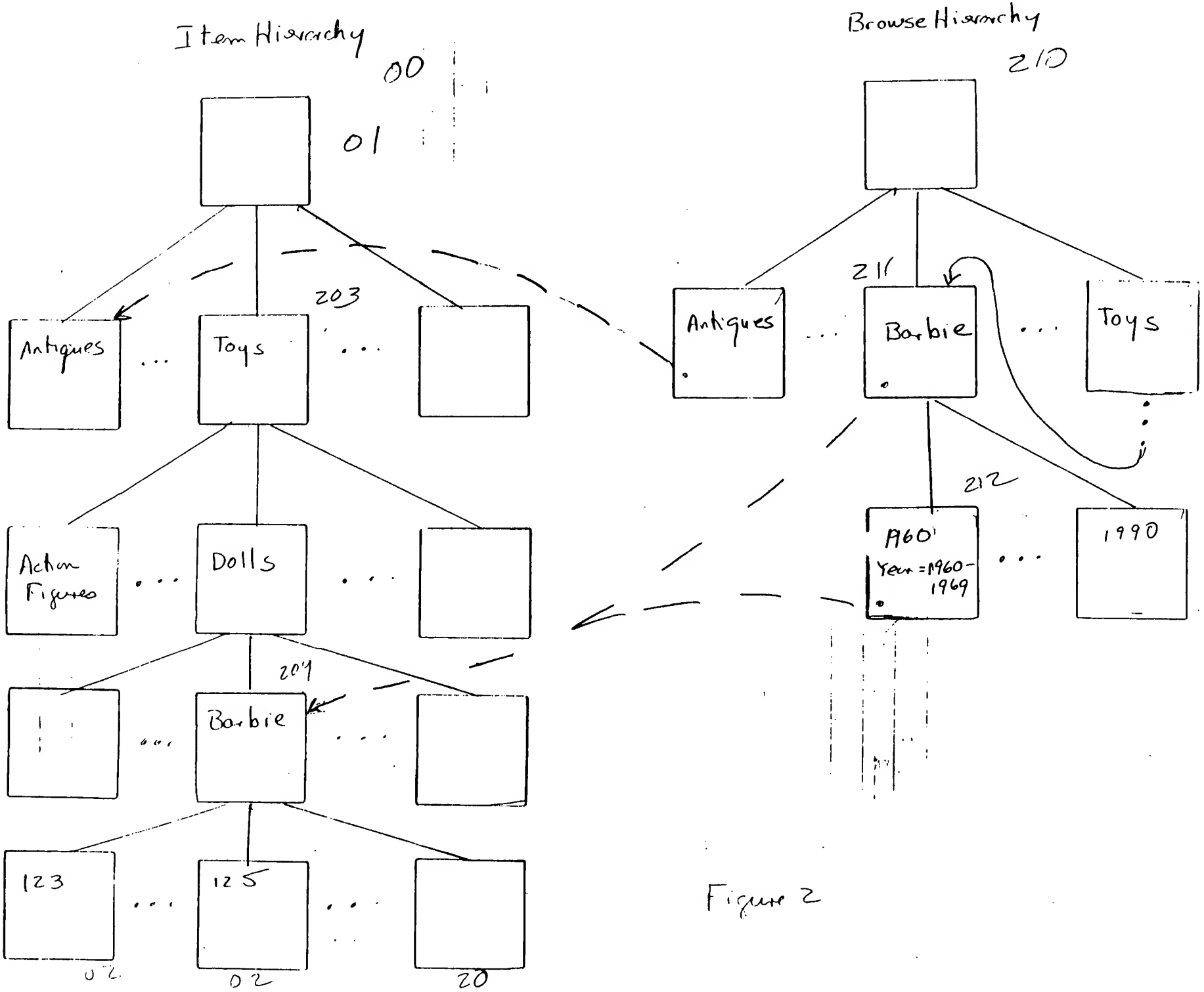
Item Hierarchy
00
01
203
Antiques
Toys
Action Figures
Dolls
204
Barbie
123
125
02
02
20
Browse Hierarchy
210
211
Antiques
Barbie
Toys
212
1960
Year = 1960-1969
1990

Figure 2

Item/Attribute Mapping

105

Item/Attribute Table

Item	Att1	Att2	...	AttN
Barbie	2			
Toys	0	1		
123	4			
125				

110

Attribute Table

	Name	Type	Values
0	Condition	list	0
1	Price	dollar	
2	Year	number	
3	color	list	1
4	Size	numb	

Value Table

0	1 - new 2 - excellent 3 - good 4 - ⋮
1	1 - red 2 - green ⋮

Figure 3

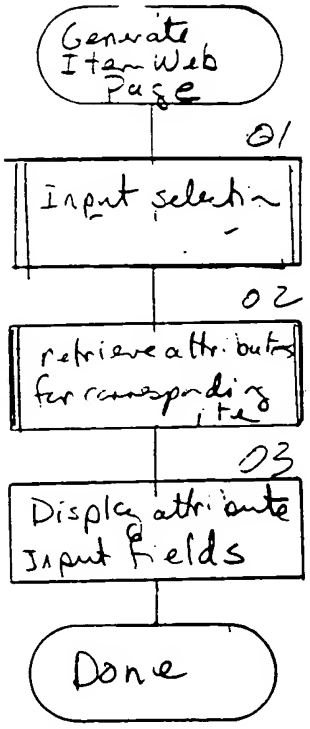
Generate Item Web Page
01
Input selection
02
retrieve attributes for corresponding item
03
Display attribute Input fields
Done

Figure 4

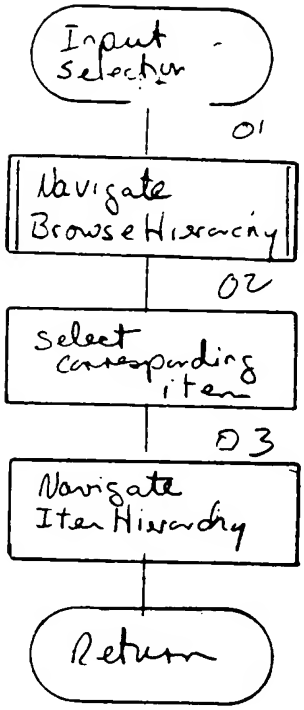
Input selection
(item)
01
Navigate Browse Hierarchy
02
Select corresponding item
03
Navigate Item Hierarchy
Return

Figure 5

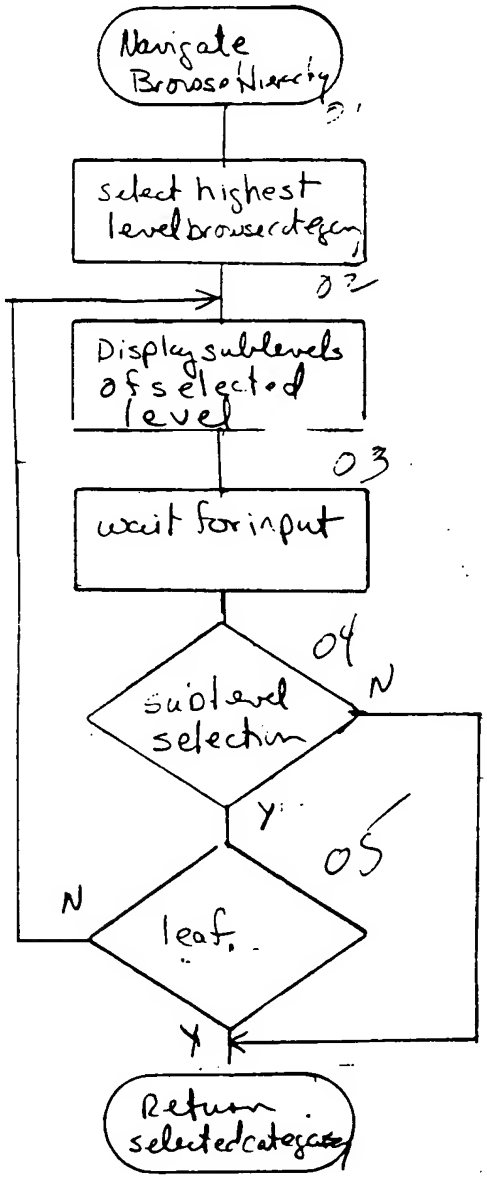
Navigate Browse Hierarchy
01
select highest level browse category
02
Display sublevels of selected level
03
wait for input
04
sub level selection
N
Y
05
leaf
N
Y
Return selected category

Figure 6

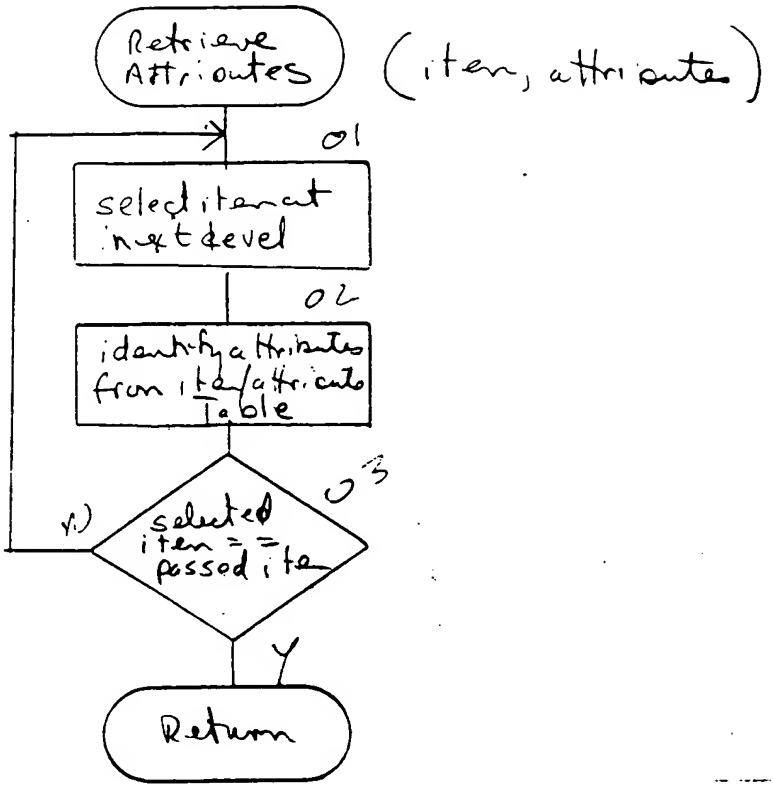
Retrieve Attributes
(item, attributes)
01
select item at next level
02
identify attributes from item/attribute Table
03
selected item == passed item
N
Y
Return

Figure 7

Item Hierarchy
Toys
Dolls
Barbie

Transaction Table

800

Model	Condition	Color	Sale Type	Sale Price	Sale Date	Duration	...
123	1	red	auction	100	1/28/99	3	
123	5	red	sale	50	2/1/99	5	
125	2	green	wanted	75	2/2/99	10	
125	8	green	auction	25	2/4/99	2	

Figure 8

Transaction Price Suggestion

Browse
~~Item~~ Hierarchy
Toys
Dolls
Barbie
[redacted]

901

Model	Condition	Color	Sale Type	Sale Price	Sale Date	Duration	...
123	good	red	auction			<3	

Suggest Price — 902

Figure 9

Transaction Price Suggestion

Browse

Item Hierarchy

1000 — Toys

Dolls

Barbie

~~1978~~

~~Disco~~

9001

Model	Condition	Color	Sale Type	Sale Price	Sale Date	Duration	...
123	3	red	auction			<3	

Based on review of 15 transaction for matching items, we suggest a sale price of $75-$100 to sell the item with the specified duration.

1002

Statistic	Price
Minimum	$50
Average	$85
~~Mean~~ Median	$75
Maximum	$150

1003

Review Transactions

List Item for Sale

List Item in Auction

Place a bid

1004

Figure 10

Transaction Trend Analysis

Browse
Item Hierarchy
Toys
Dolls
Barbie
1100

Model	Condition	Color	Sale Type	Sale Price	Sale Date	Duration	...
	X		auction	Y	>1/1/99	<3	

1161

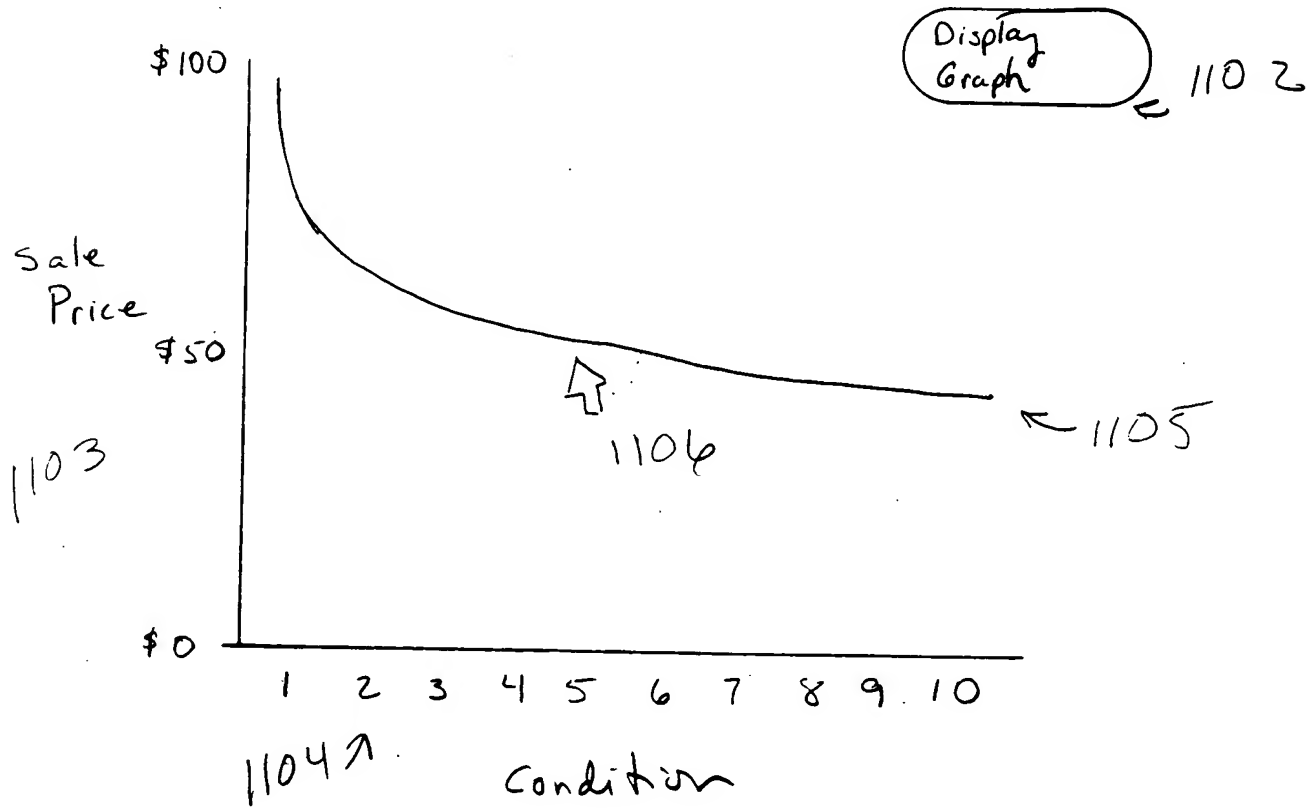

Figure 11

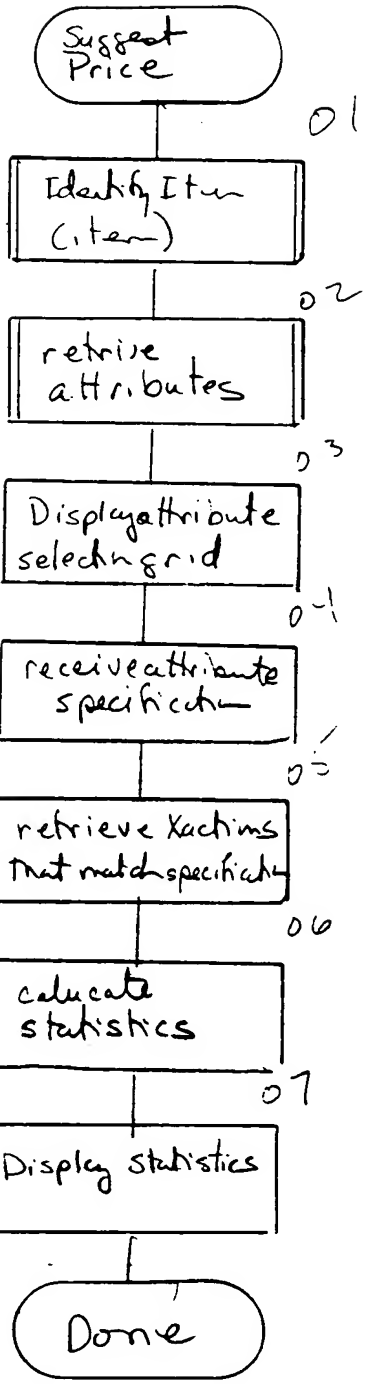
Suggest Price
01
Identify Item (item)
02
retrive attributes
03
Display attribute selection grid
04
receive attribute specification
05
retrieve Xactions that match specification
06
calculate statistics
07
Display statistics
Done

Figure 12

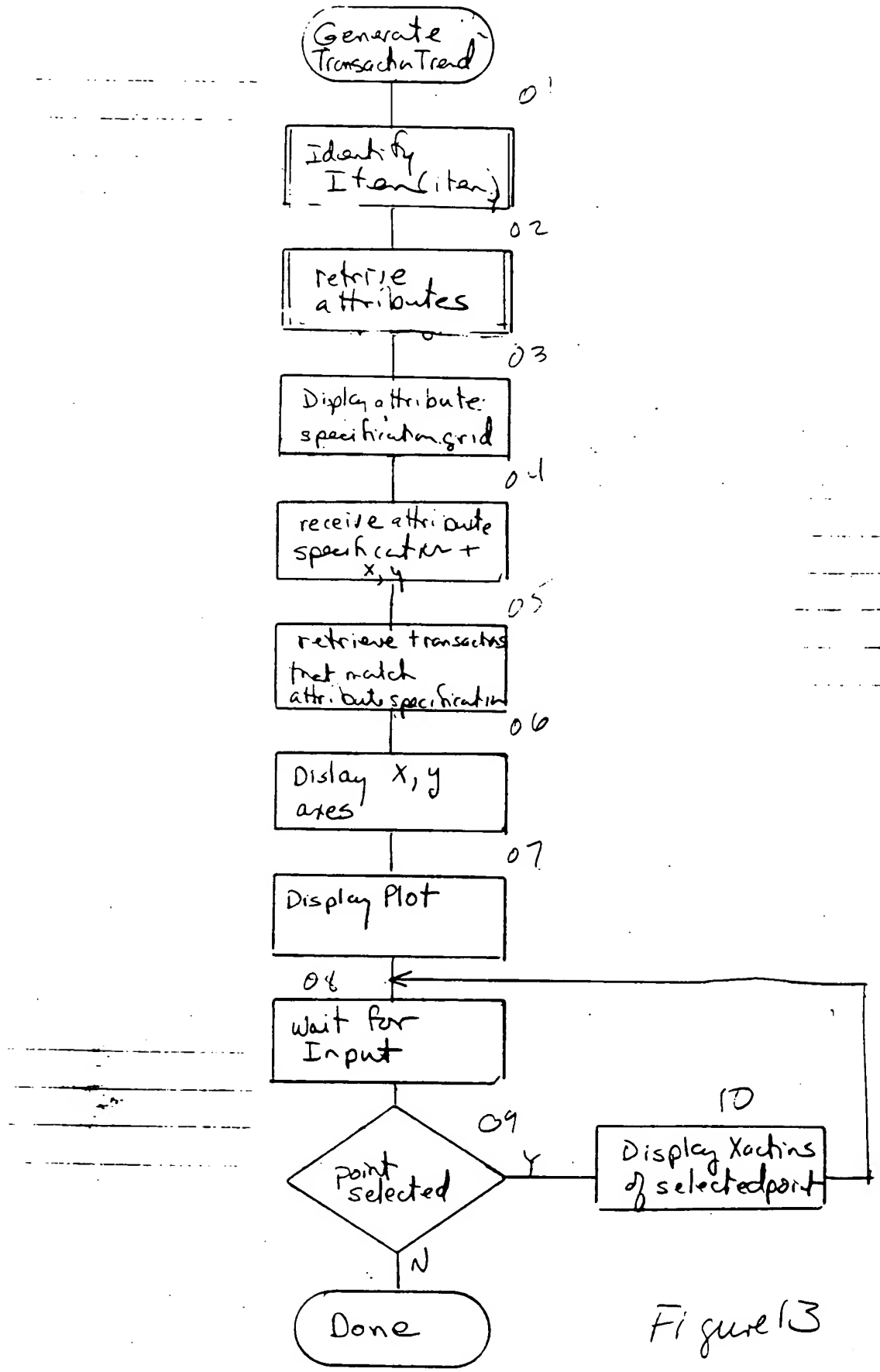
Generate Transaction Trend
01
Identify Item(item)
02
retrieve attributes
03
Display attribute specification grid
04
receive attribute specification + x, y
05
retrieve transactions that match attribute specification
06
Display x, y axes
07
Display Plot
08
Wait for Input
09
point selected
Y
10
Display Xactions of selected point
N
Done

Figure 13